

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method for scoring a severity of a neurological event associated with a nervous system disorder, the method comprising:
 - (a) determining that a sensed neurological signal represents at least one neurological event;
 - (b) identifying at least one feature of the at least one neurological event to use in scoring;
 - (c) computing a score of relative severity of the at least one neurological event using the identified feature wherein the computing allows a user to exclude a certain event from being scored; and
 - (d) ranking the at least one neurological event by severity relative to at least one other scored neurological event.
2. **(Currently Amended)** The method of claim 1, wherein the at least one neurological event is selected from the group consisting of a detection cluster event[[.]] and a reported event.
3. **(Previously Presented)** The method of claim 1, wherein the at least one feature identified in (c) is selected from the group consisting of a duration of a seizure detection, a spread, a number of clusters per unit time, a number of detections within a cluster, a duration of an event cluster, a duration of a detection, and an inter-seizure interval.
4. **(Previously Presented)** The method of claim 1, further comprising:
 - (e) communicating the ranked events to an external device.
5. **(Previously Presented)** The method of claim 1, further comprising:
 - (e) displaying the ranked events.

6. **(Previously Presented)** The method of claim 1, wherein the ranking in (d) is performed by an implanted device.

7. **(Previously Presented)** The method of claim 1, wherein the identifying the at least one feature in (b) comprises:

- (i) using algorithm-based measures of activity of the nervous system disorder.

8. **(Previously Presented)** The method of claim 5, wherein the nervous system disorder is a seizure and the computing the score in (c) comprises:

- (i) relating duration, intensity, and extent of electrographic spread of the nervous system disorder.

9. **(Cancelled).**

10. **(Currently Amended)** The method of claim 1, wherein the feature is selected from the group consisting of a number of monitoring elements involved in the event, a number of clusters per unit time, a number of detections within a detection cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

11. **(Previously Presented)** The method of claim 1, wherein the computing the score in (c) comprises:

- (i) computing a relative severity minimum, wherein the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

12. **(Previously Presented)** The method of claim 1, wherein the neurological signal received from the monitoring element is selected from the group consisting of a chemical signal, a biological signal, a temperature signal, a pressure signal, a respiration signal, a heart rate signal, a pH-level signal, and a peripheral nerve signal.

13. **(Cancelled).**

14. **(Previously Presented)** The method of claim 1, wherein the nervous system disorder is selected from the group consisting of a peripheral nervous system disorder, a mental health disorder, and a psychiatric disorder.

15. **(Currently Amended)** A medical device system capable of scoring a severity of neurological events relating to a nervous system disorder, the system comprising in combination:

- (a) at least one monitoring element, each at least one monitoring element configured to generate a neurological signal of a sensed neurological condition; and
- (b) a means for processing ~~for configuring to detecting~~ a neurological event based on an evaluation of the neurological signal, ~~and for identifying to identify~~ at least one feature of the neurological event for use in scoring, ~~for computing the means for processing further configured to compute~~ a score of relative severity of the neurological event using the identified at least one feature, ~~for and to ranking the~~ neurological event by severity relative to at least one other scored event, ~~and for allowing a user to exclude a certain neurological event from being scored.~~

16. **(Currently Amended).** The medical device system of claim 15, wherein the neurological event the means for processing is capable of configuring to detecting is selected from the group consisting of a detected event, a detection cluster event, and a reported event.

17. **(Currently Amended)** The medical device system of claim 15, wherein the at least one feature the means for processing is ~~for configured to~~ identifying is selected from the group consisting of a duration of a seizure detection, a spread, a number of clusters per unit time, a number of detections within a detection cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

18. **(Currently Amended)** The medical device system of claim 15, wherein the means for processing is further ~~for configured to communicate~~ communicating the ranked neurological events to an external device.

19. **(Currently Amended)** The medical device system of claim 15, wherein the means for processing is further ~~for configured to cause~~ causing the ranked neurological events to be displayed.

20. **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is positioned in an implanted device.

21. **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further ~~for configured to~~ identifying the feature using algorithm-based measures of activity of the nervous system disorder.

22. **(Previously Presented)** The medical device system of claim 21, wherein the nervous system disorder is a seizure and the means for processing is further ~~for configured to compute~~ computing the score by relating duration, intensity, and extend of electrographic spread of the nervous system disorder.

23. **(Cancelled).**

24. **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is ~~further for identifying~~~~-configured to identify~~ at least one feature selected from the group consisting of a maximal intensity of the event, a number of monitoring elements involved in the event, a number of clusters per unit time, a number of detections within a cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

25. **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further ~~for determining~~~~-configured to determine~~ a relative severity minimum, whereby the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

26. **(Previously Presented)** The medical device system of claim 15, wherein the at least one monitoring element is configured to generate the neurological signal selected from the group consisting of a chemical signal, a temperature signal, a pressure signal, a respiration signal, a heart rate signal, and a ph-level signal.

27. **(Previously Presented)** The medical device system of claim 15, wherein the at least one monitoring element is selected from the group consisting of an electrode and a sensor.

28. **(Previously Presented)** The medical device system of claim 15, wherein the nervous system disorder is selected from the group consisting of a central nervous system disorder, a peripheral nervous system disorder, a mental health disorder, and a psychiatric disorder.

29. **(Cancelled).**

30. **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is positioned within an implanted device.

31. **(Cancelled)**
32. **(Previously Presented)** The medical device system of claim 30, further comprising:
- (c) an external device having a display for displaying the ranked events.
33. **(Previously Presented)** A method for determining the severity of a detection cluster comprising:
- (a) determining that a sensed neurological signal represents a detection cluster;
 - (b) identifying at least one feature in the detection cluster;
 - (c) computing a score of relative severity of the detection cluster using the identified at least one feature, wherein the computed score is selected from a range of at least three values including an upper value and a lower value; and
 - (d) ranking the detection cluster by severity relative to previously scored detection clusters.
34. **(Previously Presented)** The method of claim 33, wherein the at least one feature identified in (b) is selected from the group consisting of a spread of the detection cluster, a number of detection clusters per unit time, a number of detections within the detection cluster, a detection cluster severity, and an inter-seizure interval.
35. **(Previously Presented)** The method of claim 33, wherein the computing of the score in (c) comprises:
- (i) computing a relative severity minimum, in which the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

36. **(Previously Presented)** The method of claim 33, wherein the computing of the score in (c) comprises:

- (i) allowing a user to exclude a certain event from being scored.

37. **(Previously Presented)** The method of claim 33, wherein (b)-(d) occur after the detection cluster has ended.

38. **(Previously Presented)** A method for determining the severity of a detected neurological event comprising:

- (a) receiving a neurological signal;
- (b) processing the neurological signal to detect a neurological event;
- (c) characterizing at least one feature of the detected neurological event; and
- (d) computing a score of severity of the neurological event based on the at least one feature, wherein the computed score is selected from a range of at least three values including an upper value and a lower value.

39. **(Previously Presented)** The method of claim 38, further comprising:

- (e) ranking the neurological event relative to at least one other neurological event, the ranking based on the severity score.

40. **(Previously Presented)** The method of claim 39, wherein the feature characterized in (c) is selected from the group consisting of a spread of the detection cluster, a number of detection clusters per unit time, a number of detections within the detection cluster, a detection cluster severity, and an inter-seizure interval.

41. **(Previously Presented)** The method of claim 39, wherein the computing in (d) comprises:

(i) computing a relative severity minimum, in which the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

42. **(Previously Presented)** The method of claim 39, wherein the computing in (d) comprises:

(i) allowing a user to exclude a certain event from being scored.

43. **(Previously Presented)** The method of claim 38, wherein (c)-(d) occur after the detected neurological event has concluded.